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continuous plastics-plastics or plastics-wood texture, respectively, having a homogeneous texture structure, is not ensured due to the insufficient mixing. Furthermore, the desired mechanical properties, like transverse pull strength, flexural strength and also the desired behaviour in humid conditions, like swelling behaviour and water absorption, are not attainable.

As has been already described in the previous patent application, crushed agglomerate is used for these reasons, for which purpose different milling technologies can be used. For a producer of wood materials who wants to use milled plastics agglomerate, there only remains to buy milled plastics agglomerate from a third side or to invest into a sumptuous milling machine.

A similar problem results for producers which make materials from other fibrous materials, e.g. from vegetable fibres like those from flax or hemp, or even from glass or carbon fibres. When these fibres are to be mixed with fibres from recycled plastics in order to prepare a corresponding fibrous material, the plastics agglomerate should be milled by the producer himself, which requires a suitable milling machine, or it should be acquired in a milled form from a third side, which also requires a relatively high expenditure.

From US 5,154,361A a method for crushing plastics parts has become known, in which a suspension of the plastics particles in water is passed through a disc refiner, together with an antifoaming agent. In one example, the suspension contains 3% solid matter. Cellulose fibres can also be admixed to the suspension.

From EP 0 588 023A a method for producing a compound body has become known, in which plastic-coated compound materials, preferably paper or cardboard, are used as the starting materials. The compound materials are crushed into particles and thereafter the mass is warmed to at least the melting temperature of the plastics of the

compound materials and is bonded to each other under pressure. From DE 101 28 549 it has become known to produce preformed parts from natural fibres or chips by adding a plastics polymer as a binder. The preformed part is prepared without extrusion.

The present invention is based on the objective to provide a method for producing a fibrous material for the manufacturing of preformed parts, in which the expenditure for the use of defibrated or milled recycled plastics is significantly reduced.

Patent claims

1. Method for producing a fibrous material for the manufacturing of preformed parts, in which a portion of particles and/or fibres from plastic material is admixed to a first group of fibres and/or particles, in which a binder is added to the fibrous material and it is pressed into a preformed part upon application of heat, wherein the particles and/or fibres from plastic material are obtained by crushing and/or defibration of pure or mixed plastics in a disc refiner, wherein water is supplied to the disc refiner during the crushing operation, characterised in that agglomerate from pure or mixed plastics is crushed in the disc refiner and that the particle size of the particles or fibres from plastic material approximately corresponds to the particle size of the particles or fibres of the first group.
2. Method according to claim 1, characterised in that only pure plastics is defibrated in the disc refiner.
3. Method according to claim 1 or 2, characterised in that the particles and/or fibres of the plastics are dried after being crushed.
4. Method according to any one of claims 1 to 3, characterised in that the first group of fibres is obtained by defibrating flax, hemp, glass or carbonized material.
5. Method according to any one of claims 1 to 3, characterised in that the first group of particles or fibres is obtained by crushing or defibration of wood.

20. The application of the method according to any one of claims 1 to 19 to the manufacture of wood material parts, in particular of wood fibre boards, by partly substituting the wood chips or wood fibres by particles or fibres from plastics, which stem from milled agglomerates of recycled plastics.